

REMARKS/ARGUMENTS**I. Introduction**

This amendment is submitted in response to the Office Action dated Feb. 13, 2004.

Claims 2, 6, 18, 27-29 and 30 have been amended. Claims 24-26 and 30 have been canceled. Accordingly, claims 1-23, 27-29 and 31-40 are pending.

In the Office Action the Examiner indicated that claims 6-9 were directed to allowable subject matter but objected to these claims for depending from a rejected base claim. **Claim 6 has been rewritten in independent form. Accordingly, claim, 6 and claims 7-9 which depend therefrom are now in condition for allowance.**

In the Office Action the Examiner objected to claim 28 as being the same as claim 27. Claim 28 has been amended to depend from claim 19 and is therefore no longer the same as claim 27 which now depends from claim 18. Accordingly, the Examiner's objection to claim 28 has been overcome.

With regard to prior art, the Examiner rejected claims 1-2, 10-11 and 15-16 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,215,865 to McCalmont. In addition, Claims 18-19, 21-22, 24-26, 29-32 and 37-39 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,583,564 to Rao et al. The remaining pending claims, i.e., claims 3-5, 12-14 and 17, 20, 23, 27, 33-36 and 40 were rejected under 35 U.S.C. § 103 as being obvious in view of an Examiner proposed combination of Rao et al. and McCalmont.

Each of the pending independent claims which were rejected in view of references which fall to recite or discuss hook flashes let alone the use of hook flash triggers. As will be discussed below, neither the Rao et al. nor the McCalmont patent teaches, discloses or suggests the use detecting a hook flash, use of a hook flash mid call trigger or any other feature specifically relating to a hook flash. Accordingly, these references in no way anticipate or render obvious the pending claims whether considered alone or in combination.

II. Discussion of the Invention and Applied References

1. The Present Invention

The present invention is directed to methods and apparatus for providing call routing, call transfer and call conferencing operations using Advanced Intelligent Network (AIN) capabilities in response to a hook flash. The methods and apparatus of the present invention can be used with end user systems with various levels of computer/telephony integration.

In various embodiments, an ISCP causes the incoming call to be routed to the station selected by the network server, the network server populates the end-user's, e.g., service representative's, computer screen with pertinent data specific to the incoming call. The user, e.g., first user, to whom the call is directed may redirect, e.g., transfer, the call to another user (e.g., second user) or initiate a conference call between the calling party and the second user.

The call transfer and conference calling features of the present invention can be activated through a hook flash. This signal can be generated and communicated on the telephone line used to carry a telephone call. The use of a hook flash to control call transfer functions, as opposed to controlling call transfer and other functions through a packet based computer interface, avoids and/or reduces the need to support packet based computer control of telephone switching, conferencing

and/or routing operations through IP or other types of packet based computer interfaces to telephone switching devices.

The use of the hook flash and AIN functionality facilitates a network based solution to the need for call routing, transfer and conferencing needs and avoids the need for complicated interfaces or special hardware at a subscriber's premises. In various embodiments, the hook flash activates an AIN trigger, e.g., a hook flash mid call trigger, set on the user's line. As noted in the summary found in the present application AIN triggers which are activated by a switch hook flash are called hook flash triggers. Table 4-1 of Bellcore document GR-1298-CORE (Issue 4, September 1997 w/revision 1, Oct 1998) lists several AIN hook flash triggers.

In some embodiments, as a result of activation of the hook flash mid-call trigger, an ISCP is contacted by the telephone switch corresponding to a user of a service implemented in accordance with the invention and a transfer or conference call operation is initiated under control of an ISCP coupled to the telephone switch when the switch detects a hook flash on the user's telephone line causing activation of a mid call trigger set on the user's telephone line. A user can perform a second hook flash to activate the mid-call trigger for a second time and cause, in some embodiments, the ISCP to complete a call transfer operation or conference call operation.

The call transfer and conferencing capability supported by the use of a hook flash trigger set at a telephone switch can be in addition to, or as an alternative to, call transfer and/or conferencing capability which can be provided in response to control signals received from a user's computer.

Thus, the invention provides a method of supporting call transfer and conferencing features during an on-going call through the use of hook flash mid call triggers which are supported by AIN functionality.

2. The McCalmont Patent

The McCalmont patent describes a system and method for use in call center operations which enable a customer service representative (CSR) to transfer a customer to a receiving CSR with selected data from a computer workstation. (See Abstract and col. 4, lines 54-56). In the McCalmont system, each customer service representative is provided with a workstation 120 that may be implemented with a conventional computer and includes a display device a keyboard, mouse, etc. (See, Col. 4, lines 54-66) Each CSR workstation 120 executes a telephony client 122 which supports the ability to initiate the transfer of a customer call. (See, col. 5, lines 39-42) The telephone client 122 provides screen based controls for answering, releasing, and transferring customer calls along with other telephony functions. (See, col. 7, lines 1-4) The transfer button of the telephony client enables the user to be able to transfer a call. See, col. 7, lines 40-41.

The McCalmont patent which describes computer workstation based control of call transfers, e.g., in response to a customer service representative selecting a transfer button displayed on the computer screen, does not mention hook flashes let alone transferring calls in response to hook flashes or hook flash mid call triggers which are activated by hook flashes. The CSR workstation 120 is coupled to the ACD system 110 via network 130. There is no reason that call transfer message can not be sent over the network 130 using IP packets.

Accordingly, there is no inherent need in the McCalmont patent for a hook flash signal to be used since an IP message can be used and communicated over network 130. There is NO discussion or need to use a hook flash mid call trigger in the McCalmont patent to generate a hook flash signal, detect a hook flash signal or use a hook flash mid call trigger. McCalmont is not an AIN based system call transfer system. Instead, it is based around an IP network 130 which is used in combination with an ACD system that is used to distribute calls

3. The Rao Patent

The Rao patent describes a call forwarding service implemented using an intelligent network that includes a service switching point and a service control point. A call to a network subscriber is routed to a SSP which is used to detect call forwarding triggers. When a call forwarding trigger is detected the SSP passes the calling party's number to the SCP which then provides call handling instructions as provisioned by the subscriber. The SSP then forwards the call in accordance with the instructions. (See Abstract) The patent describes an implementation in col. 3, line 61 to col. 4, line 9 where the called telephone station 10 to which a call is placed is busy on another call. In this case, a call directed to the telephone station 10 while the station 10 is busy produces what is called a mid-call trigger. This line busy condition trigger triggers the SSP to send a query to the service control point (SCP) and the incoming call is then controlled according to instructions included in the SCP's database. The instructions may cause the call to be played a message and/or forwarded to another number. (See, col. 4, lines 20-47).

The Rao patent, which discusses the use of line busy triggers. The Rao patent does not mention hook flashes or the use of hook flash mid call triggers. In contrast to line busy triggers, which are responsive to a busy line condition, e.g., when attempting to complete a call to a line, hook flash mid call triggers are responsive to a hook flash condition. The hook flash condition is a signal initiated by a party on a line. It is significantly different from a busy line condition signal and corresponding busy line condition trigger and has different uses and limitations as will be evident from a review in the table included herewith in Appendix A. The Rao patent does not teach, disclose or suggest the use of a hook flash mid call trigger let alone the novel use of such a trigger as recited in the pending claims.

III. The Pending Claims are Patentable

Applicant has reviewed the portions of the references cited by the Examiner to reject the claims. Applicant has been unable to find any reference in the two applied references to a hook flash, detecting a hook flash, or use of a hook flash. While one reference, the Rao patent, mentions mid call triggers, it is in the context of an example of a busy line trigger. Applicant notes that there are various types of mid call triggers. The mere mention of the term mid call trigger does not anticipate or render obvious the pending claims. Busy line triggers are very different from hook flash triggers in terms of what causes the triggers to be activated. Accordingly, it is respectfully submitted that use of a busy line trigger does not teach, disclose or suggest the use of hook flash triggers which are activated by hook flashes NOT busy line conditions.

As discussed in the summary of the present application, in regard to various exemplary embodiments:

The call transfer and conference calling features of the present invention can be activated ... through a switch hook flash, sometimes called a hook flash for short. In various embodiments, the hook flash activates an AIN trigger, e.g., a mid call trigger, set on the user's line. AIN triggers which are activated by a switch hook flash are sometimes called hook flash triggers. Table 4-1 of Bellcore document GR-1298-CORE (Issue 4, September 1997 w/revision 1, Oct 1998) lists several AIN hook flash triggers. As a result of activation of the hook flash mid-call trigger, the ISCP, in accordance with the present invention, is contacted by the user's switch and a transfer or conference call operation is initiated under control of the ISCP. A second hook flash is used to activate the mid-call trigger for a second time causing the ISCP to complete the call transfer operation or conference call operation.

Each of the independent claims, as originally filed or as the result of amendments made herein, recites the detection of a hook flash, use of a hook flash trigger, or some other specific hook flash feature.

As discussed above, neither the McCalmont nor the Rao patents discuss hook flashes or the use of hook flash mid call triggers, let alone using them to control the transfer of calls as recited in various claims. Since the references cited by the Examiner do not disclose, discuss or suggest detecting hook flashes or the use of hook flash mid-call triggers, the references do not anticipate or render obvious the pending claims whether the references are considered alone or in combination.

A. Claims 1-5 and 10-17 are Patentable

Independent claim 1, and claims 2-5 and 10-17 which depend therefrom, are patentable because claim 1 recites:

A method of providing a communications service in a system including a calling party, a first receiving party having a first computer and a first telephone device; and a second receiving party having a second computer and a second telephone device, the method comprising:

detecting a *hook flash*;
in response to detecting a *hook flash*,
transmitting call related data, at least some of which was
previously provided to the first computer, to the second computer;
and

establishing a voice connection between the calling party and the second telephone device.

B. Claims 6-9 are Patentable

The Examiner indicated claims 6-9 were directed to allowable subject matter but objected to these claims for depending from a rejected base claim. Claim 6 has been rewritten in independent form. Accordingly, claim 6 and claims 7-9 are now in condition for allowance.

C. Claims 18, 19-23, and 27-28 are Patentable

Independent claim 18 and claims 19-23 and 27-28 which depend there from are patentable because claim 18, as amended, recites:

A communications method, the communications method comprising:

setting a hook flash mid-call trigger at a telephone switch on a telephone line;
 receiving a first telephone number over said telephone line; and
 in response to the hook flash mid-call trigger being activated, sending the first telephone number to a service control point;
 operating the service control point to a monitor for change message including said first telephone number to a the telephone switch, the monitor for change message including a first telephone number;
 operating the telephone switch to determine the status of a telephone line corresponding to the first telephone number; and
 controlling the telephone switch to perform a call routing operation as a function of the determined telephone line status.

D. Claims 24-26 have been Canceled

In view of the amendment to claim 18, claims 24-26 have been canceled.

E. Claims 29 and 31-36 Are Patentable

Claim 29 and claims 31-36 which depend there from are patentable because independent claim 29, as amended, recites:

A communications system, comprising:

 a service control point including instructions to transmit a monitor for change message to a telephone switch, the monitor for change message including a first telephone number and including instructions to control initiation of a call as a function of telephone line status information received in response to the monitor for change message; and

 a telephone switch including:

- i) an AIN hook flash mid-call trigger set on a telephone line; and
- ii) means for transmitting a telephone number received by the switch to the service control point in response to activation of the hook flash mid-call trigger; and
- iii) means for processing monitor for change messages, said means operating to control the telephone switch to

determine the status of a telephone line corresponding to the first telephone number.

F. Claim 30

Claim 30 has been canceled in view of the amendment to claim 29.

G. Claims 37 and 38 Are Patentable

Independent claim 37 and claim 38 which depends therefrom is patentable because independent claim 37 recites:

A communications system including:

a server including information on a plurality of telephone service subscribers, the information for each of the plurality of telephone service subscribers including a telephone number associated with the telephone service subscriber and a communications address corresponding to a computer used by the telephone service subscriber;

a service control point including a call processing record for each of at least some of the plurality of telephone service subscribers for which information is stored in the server, the service control point being coupled to the server by a first communications network; and

a telephone switch coupled to the service control point and to at least one telephone device associated with a telephone service subscriber, the telephone switch having a hook flash mid-call trigger set on at least one telephone line associated with a telephone service subscriber for which information is stored in said server.

H. Claims 39 and 40 Are Patentable

Claim 39 and claim 40 which depends there from are patentable because claim 39 recites:

A communications system, the communications system including:

a telephone switch having a hook flash midcall trigger set on a telephone line; and

a service control point coupled to the telephone switch, the service control point including a call processing record, the call processing record including instructions to send a monitor for change message to said telephone switch in response to the service control point receiving a message from said telephone switch that was generated in response to activation of said hook flash midcall trigger.

IV. Request For Clarification

If the Examiner persists in the rejection of any of the pending claims or issues any new rejections it is specifically requested that the Examiner identify:

With regard to claim 1: If the Examiner contends use of a hook flash signal and/or detection of hook flash is inherent in the McCalmont patent despite its failure to mention a hook flash anywhere in the patent, **Applicant requests that the Examiner explain why the CSR workstation could not send a call transfer message over the IP network 130 to the ACD system to initiate a call transfer or conferencing operating thereby avoiding the need for a hook flash signal.**

With regard to claim 1, where in the prior art reference(s) is detecting a hook flash described? If the Examiner asserts that reference to mid call triggers generally or detecting a busy line condition somehow anticipates or renders obvious detecting a hook flash as recited in the claims, Applicant respectfully requests that the Examiner explain the basis for such a position and specifically how a hook flash trigger would be used in the reference upon which the rejection is based. Would the hook flash trigger be used prior to or after call completion in any system the Examiner would create by modifying a reference and what signal would be sent to an SCP in the system in response to activation of a hook flash trigger? How many times would a hook flash trigger be activated in the Examiner's modified system to complete a call transfer or other call operation?

With regard to claim 2 - an AIN hook flash mid call trigger is specifically recited in this claim. Applicant notes that this claim is directed to the use of a very specific trigger, i.e., an Advanced Intelligent Network hook flash mid call trigger. If the Examiner is unable to find a reference which uses an AIN hook flash mid call trigger, it is respectfully requested that the Examiner explain why the applied reference renders claim 2 obvious. Applicant respectfully submits that AIN based systems and implementations are often very different from computer based or pure switch based approaches which do not use AIN triggers and instead use hardware triggers or other features that do not involve AIN functionality.

With regard to claim 18, the claim recites use of both a hook flash mid-call trigger AND a monitor for change message. Applicant respectfully requests that the Examiner identify where both of these elements can be found in a single reference as part of processing at least one call. If the Examiner cannot cite such a reference it is respectfully requested that the Examiner explain how one of the references would be modified so that a single call connection or call flow uses both a hook flash mid-call trigger and a monitor for change message. Applicant requests that the Examiner provide sufficient detail to permit Applicant to determine what signals the Examiner contends would be sent to an SCP and received from an SCP and at what points the signals relating to the mid call trigger and monitor for change message are sent/generated and/or received. Such information is needed so that Applicant can review the Examiner's proposed modifications to determine if they are feasible, let alone obvious.

With regard to claim 37 - Please specifically identify: 1) a server, 2) **information on a plurality of telephone service subscribers** included in said server and 3) a **communications address** corresponding to a computer used by the telephone service subscriber which is included in said server. In addition with regard to claim 37 please specifically identify: 4) a **service control point**; 5) a **call processing record** for each of at least some of the plurality of telephone service subscribers for which information is stored in the server; and 6) a **telephone**

switch coupled to the service control point and to at least one telephone device associated with a telephone service subscriber, the telephone switch having a hook flash mid-call trigger set on at least one telephone line.

The above information is requested so that Applicant can have a full and fair opportunity to respond to any new and/or repeated rejections. The above requested information is not intended to be an exhaustive list of claim features and it is requested that any new rejections specifically cite support in a prior art reference for each and every feature of any claim which is rejected.


Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Accordingly, Applicant requests that the Examiner pass this application to issue.

If there are any outstanding issues which need to be resolved to place the application in condition for allowance the Examiner is invited to contact Applicants undersigned representative by phone to discuss and hopefully resolve said issues. To the extent necessary, a petition for extension of time under 37 C.F.R. 1.136 is hereby made.

Respectfully submitted,

May 12, 2004


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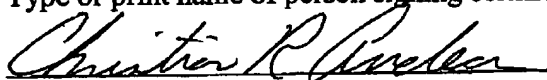
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